

THURSDAY, AUGUST 31, 1882

THE LITERATURE OF BOTANY

Guide to the Literature of Botany. Being a Classified Selection of Botanical Works, including nearly 6000 titles not given in Pritzel's "Thesaurus." By Benjamin Daydon Jackson, Secretary to the Linnean Society. Pp. xl. 626. (London: published for the Index Society by Longmans, Green and Co., and Dulau and Co., 1881.)

Vegetable Technology. A Contribution towards a Bibliography of Economic Botany, with a comprehensive Subject-index. Pp. xii., 355. (Same Author and Publishers, 1882.)

WE have here two books of unequal importance which nevertheless have so much in common that they may fitly be noticed together. Both are produced by the same author, and under the auspices of the same Society—a Society, by the way, which has not escaped severe criticism of the *cui bono* order, but which goes far towards justifying its *raison d'être* by the publication of works like those now to be considered. The "Guide to the Literature of Botany" was issued about a year since, but has not been noticed in these pages; so that the appearance of the later work furnishes an opportunity for some reference to the former.

We have referred to the two volumes as unequal in importance—seeing that one offers itself as a guide to the whole of botanical literature, while the other only occupies a small portion of the same wide field. But the inference that "Vegetable Technology" was merely a portion of the larger work would be very incorrect; the two volumes are quite distinct, and are treated in a different manner, and neither covers the ground occupied by the other. The arrangement of the two books is also different. The "Guide" is a list of books classified under headings expressing different branches of the subject, the index consisting of the authors' names, with reference to the titles (abbreviated) of their works. By the time Mr. Jackson had completed the "Guide," he was fully conscious of the inconveniences of this plan; and formed a resolution that, if again engaged in any similar labour, he "would steadily adhere to the practice of ranging the works under an alphabetical sequence of authors' names"; this resolution he has carried out in "Vegetable Technology." There can, we think, be little doubt as to the advantage of this latter plan. It is by no means easy to classify some works; and Mr. Jackson's grouping in his earlier volume, although at least as good as could have been expected, is sometimes not quite satisfactory. One does not quite know what to expect under such headings as "Maturization" (p. 101), "What is a Species?" (p. 97), or "Sundry Phenomena" (p. 107). A reader searching for references to works on the bamboos would find one such treatise under *Bambusa*; but he would hardly think of searching further under the heading "Textile Plants," where, nevertheless, is a second book on the subject, "Bamboo and its Uses," by S. Kurz. A cross reference here, as in many other cases, is almost essential; on the system adopted in "Vegetable Technology," a help of this kind is supplied by the index of subjects. The island of St.

Croix is not in Oceania (p. 404), but in the West Indies. Ellis's "Directions for bringing over Seeds" would be better under "Plant-collection" (p. 217) than under "Botanical Gardens" (p. 405); Crépín's "Guide du Botaniste," if placed among "local Floras," should certainly be also referred to under the first-named heading; Lemaire's *Flore des Serres* has so much in common with the *Botanical Magazine*, that it seems strange to find the former under "Botanical Gardens" (p. 406) and the latter under "Serial Publications" (p. 473). Criticisms of this kind might, if needed, be almost indefinitely extended; but probably enough has been said to show that a classified list is open to considerable objections, of which, as has been already shown, the author himself is fully aware.

We have alluded to cases in which a cross-reference would have been of great use; this is very noticeable in the section devoted to "Monographs." Under *Compositae*, for example, only two memoirs are noted; but in the same section are at least twenty papers or treatises devoted to plants belonging to the same order. There are four entries under *Solanaceae*; references to *Capsicum*, *Datura*, and *Nicotiana* would have been useful.

But allowing that there are matters of detail which might have been improved, there cannot be two opinions as to the great value of Mr. Jackson's work. The mere fact that it includes "nearly 6000 titles not given in Pritzel's 'Thesaurus'" testifies not only to its usefulness, but to the industry of its compiler in hunting up omissions; for although many of the works have been issued since the publication of the "Thesaurus" (1871), the proportion of treatises omitted from that invaluable work is very considerable. There may be some who regret that Mr. Jackson did not give us a new edition of Pritzel while his hand was in; but as he tells us that "the Guide is meant to be SUGGESTIVE, not EXHAUSTIVE," we have no right to complain that he does not give more than he intended; and indeed the general feeling will be one of satisfaction that he has given us so much.

In the preface to his second volume Mr. Jackson tells us that "a complete bibliography of Economic Botany would need the labour of years;" and this seems at least probable if we accept his previous statement that "the bibliography of the vine in all its bearings would require a lifetime for its compilation." As we hope to have much more good work from Mr. Jackson—notably the new edition of Steudel's "Nomenclator," upon which vast undertaking he is now, with characteristic energy, engaged—we do not blame him for putting the exacting vine on one side. Besides independent works, "Vegetable Technology" includes the titles of papers in the *Journal of the Society of Arts* and the *Pharmaceutical Journal*, with some from the *Journal of Applied Science*, and the *Technologist*. We could have wished that the many excellent papers in the various botanical journals edited by Sir W. J. Hooker,¹ as well as others published in the *Journal of Botany* during recent years had been included: the *Gardeners' Chronicle*, too, is only quoted at second-hand, when papers have found their way from its pages into those of the *Pharmaceutical Journal*. In many cases Mr. Jackson has added the scientific name of

¹ It is much to be regretted that there is no index worthy of the name to any of these journals, which contain a vast amount of useful matter. Will the Index Society at some later date place botanists under still further obligations to them by undertaking this work?

the plant under discussion, and this is very useful; not every one knows off-hand that "*Kafurkachri*" = *Hedydium spicatum*, or that "*Pinée*" = *Strophanthus hispidus*. Of course these are omissions we do not find in Mr. Kurz's book on the Bamboo, mentioned above; the volume on the "Eatable Funguses of Great Britain," illustrated by Mr. W. G. Smith, is not referred to, although Mr. Badham's "Esculent Mushrooms" is mentioned; while on the other hand such books as Loudon's "Hortus Britannicus" seem hardly to deserve a place. The Index, to which reference has already been made, is all that an index should be, and fully justifies Mr. Jackson's belief that "these entries supply a very fair starting-point for almost every question in vegetable technology."

Space will not allow us to enter further upon the merits of these Guides. Enough has, however, been said to direct attention to their importance and practical utility, and to encourage the happiest auguries for the success of the *magnum opus* upon which Mr. Jackson is at present engaged.

JAMES BRITTEN

OUR BOOK SHELF

Talks about Science. By the late Thomas Dunman. (London: Griffith and Farran.)

UNDER an unpretending title are here collected a number of lectures that were delivered to popular audiences, chiefly in and about London, by one whose decease, recently, in the early prime of life, has been much deplored. At the time of his death, Mr. Dunman held a post of tuition in Physiology and Animal Morphology in the Birkbeck Institution, and his labours there and elsewhere were attended with growing popularity and success. The biographical sketch by his friend, Mr. Charles Welsh, with which the book opens, tells of the zeal and well-directed energy with which he applied himself to overcoming the obstacles that for some time barred his path to what he considered his true life-work, viz. the teaching of science. These lectures—thirteen in number, deal with a considerable variety of topics, the mechanism of sensation, the star-lit sky, prehistoric man, volcanoes and coral reefs, atoms and molecules, and so on. The style is terse and lucid, and appears to have been carefully formed on the best models. The happy gift of relieving the strain of which many minds are conscious under mere scientific exposition, by some passing allusion to a familiar human experience, by the homely figure, the apt quotation, the play of imagination and humour, Mr. Dunman seems to have possessed in rich measure.

The lectures entitled "Two Life Histories" and "How the Earth is Weighed and Measured," may be taken as good examples of abstruse matters expounded without technical language, and made clear for a working-class audience. Mr. Dunman's going down a coal-pit in order to qualify himself more thoroughly for his lecture on "Coal," is typical of much of his work, which in this respect (the "testifying that which he had seen") manifested, no doubt, the inspiration of his admired teacher, Huxley. Exception might be taken to a few passages in the lectures, e.g. to the account of ocean temperatures, in "Depths of Ocean" which seems inadequate; and occasionally the author seems to affirm more confidently than the facts warrant. But as a whole the book is a good specimen of sound popularised science, and eminently engaging. As a present to a young artisan with a nascent love of science, it could not fail to be much appreciated.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

The "Eira" Arctic Expedition

I AM confident that the anticipation, contained in your article on Mr. Leigh Smith's expedition (p. 387), that he has been able to make some addition to our knowledge of geography, has been realised.

The object of Mr. Leigh Smith's voyage was a reconnaissance to accumulate evidence respecting the advantages offered by Franz Josef Land as a base of operations for future exploration. He did not intend to winter; but the accident which forced him to do so had the useful result of enabling him to extend his valuable observations over two seasons. The knowledge he thus acquired of the movements of ice, of its character along the shores and in the fiords for sledging purposes, of the prevailing winds and currents, of the amount of animal life to be obtained in the different months, will be very useful. This knowledge will be welcomed by the geographical student, and will also be of great value to future explorers. The loss of natural history collections is to be regretted, but the main object of Arctic exploration is geographical, and that object has been fully secured.

The crew of the *Eira* passed through the winter in perfect health. Yet they had no lime juice and, from want of warm clothing, comparatively little exercise during the coldest period. This fact must modify the theories based on the report of the Scurvy Committee. Here we have additional proof that it is fresh meat, and not lime juice, which is the chief preservative of health.

Another interesting point which the cruise of the *Eira* will throw further light upon, is the direction from which the ice-bearing currents come. In a former letter I called attention to the evidence of Sir Edward Parry on this point, and to the fact that his conclusions had been corroborated by subsequent observation. Mr. Leigh Smith's voyage will furnish additional evidence upon this geographical question. As regards the advantages of Franz Josef Land as a base for future discovery, Mr. Leigh Smith has shown that in 1881 and in 1882 that land could easily be reached; so that we now have proof that in five consecutive years Franz Josef Land was accessible, that it has suitable bays for winter quarters, that the shore-ice in the fiords offers good sledging surface, and that there is abundance of animal life. Mr. Leigh Smith's voyage will be found to have been most useful to geographical science, and fully to have secured the object of a reconnaissance, for which it was undertaken.

CLEMENTS R. MARKHAM

21, Eccleston Square, S.W., August 28

Markree Magnetic Dip

I HAVE made the following determinations of the magnetic dip by aid of one of Dover's excellent Kew-pattern dip-circles (No. 67). As I am observing on a pier in the open air I am not able to always use both needles simultaneously. On August 1 I observed within a few feet of the wall of the meridian-room. The other observations were made at a distance of over 100 feet from any wall:—

Date.	Time.	Dip.	Needle.
	h. m.		
1882 August 1	1 47 p.m.	[70° 26' 50"]	No. 2
" 2	4 2 "	27 38 "	" 2
" "	5 2 "	25 16 "	" 1
" 3	2 50 "	26 27 "	" 1
" "	3 56 "	27 37 "	" 2
" 15	5 22 "	26 8 "	" 1
" 16	3 32 "	26 58 "	" 2
" 21	1 37 "	25 37 "	" 1
" "	3 0 "	25 1 "	" 2

Prof. Lloyd determined the magnetic dip at this place forty-seven years ago on the same date as follows:—

1835, August 21 ... 2h. 22m. 72° 4' 48".